

Assume that the sender and receiver are employing Cyclic Redundancy Check. Assume that following data was **sent** by the sender: 1011001101  
If  $G = x^3 + 1$ , what are the remainder-bits that were generated? Show all your work

A handwritten diagram illustrating a sequence of operations on a 4x4 grid. The grid is defined by horizontal lines. The initial state (top row) is 1 0 1 0 0 1 1. A box highlights the first four columns (1 0 0 1). Arrows indicate a sequence of moves: from the first column to the second, then to the third, then to the fourth, and finally to the fifth. The resulting state (bottom row) is 0 1 1 0 0 1 1.

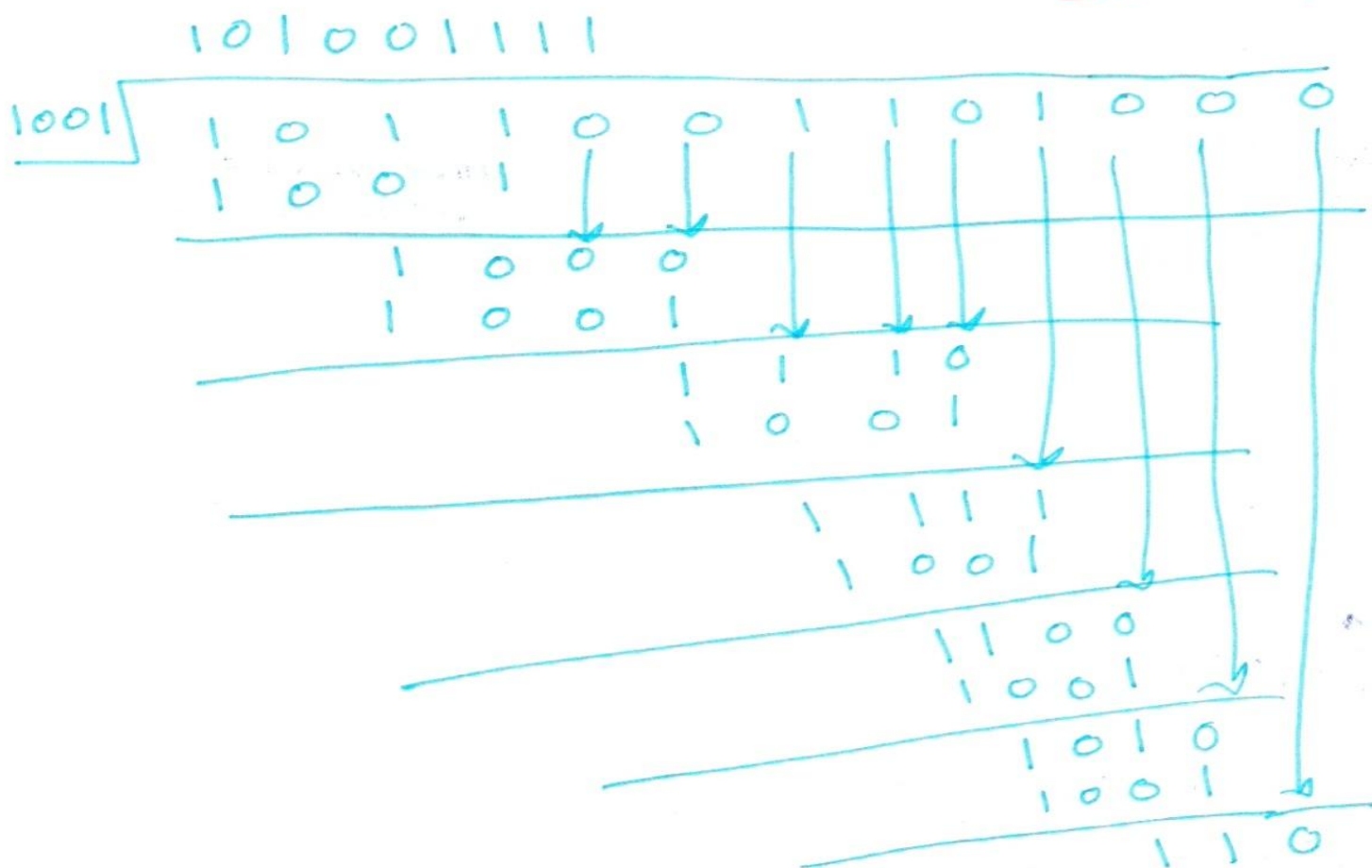
0110 ← this is the remainder bits, which shows that there is an error

110 only

This <sup>calculation</sup> is done at the  
Sender side. The  
error checking is  
done at the receiver.

11 + 3

Right answer



Remainder = 110